Arum Dahlia Mufidah (1602638), ***Learning Obstacle*** **Siswa SMA pada Konsep Turunan Fungsi**

ABSTRAK

Penelitian ini merupakan penelitian *Design Didactical Research* (DDR) interpretif yang bertujuan untuk mengidentifikasi *learning obstacle* siswa SMA pada konsep turunan fungsi. Penelitian ini tidak hanya mengidentifikasi *learning obstacle* melainkan juga mengungkap bagaimana makna dan pengalaman pemaknaan siswa pada konsep turunan fungsi. Penelitian ini melibatkan 28 siswa kelas XI program MIA disalah satu SMA swasta di Kota Bandung dan seorang guru sebagai partisipan. Data dalam penelitian ini diperoleh dari analisis hasil tes *learning obstacle,* observasi, analisis dokumentasi (kurikulum dan buku sumber), dan wawancara (siswa dan guru). Karakteristik *learning obstacle* yang berhasil teridentifikasi adalah *ontogenic obstacle* yang bersifat psikologis dan konseptual, *didactical obstacle*, dan *epistemological obstacle*. *Ontogenic obstacle* psikologis yang teridentifikasi berkaitan dengan minat dan motivasi siswa terhadap pembelajaran turunan. *Ontogenic obstacle* konseptual yang teridentifikasi berkaitan dengan tingkat konseptual desain yang terlalu sulit dan terlalu cepat bagi siswa. *Didactical obstacle* berkaitan dengan desain yang kurang merepresentasikan keterkaitan antar konsep sehingga tidak selaras dengan kebutuhan kesinambungan berpikir siswa. *Epistemological obstacle* berkaitan dengan pengetahuan siswa dalam menyelesaikan masalah berkaitan konsep turunan fungsi. Saran untuk penelitian selanjutnya terkait perbaikan alur belajar agar lebih memberikan ruang bagi siswa untuk dapat memaknai turunan fungsi dengan benar.

Kata Kunci: ***Didactical Obstacle, Epistemological Obstacle, Ontogenic Obstacle,*** **Turunan Fungsi**

Arum Dahlia Mufidah (1602638), ***Learning Obstacle of High School Students on the Concept of Derivatives of Functions***

ABSTRACT

This study is an interpretive Design Didactical Research (DDR) study which aims to identify learning obstacle of high school students on the concept of derivatives of functions. This study not only identifies a learning obstacle but also reveals how the meaning and experience of the meaning of students in the concept of derivative functions. This study involved 28 students of class XI of the MIA program at one of the private high schools in the city of Bandung and a teacher as a participant. Data are collected from the analysis of learning obstacle test results, observation, documentation analysis (curriculum and sourcebooks), and interviews (students and teachers). The characteristics of learning obstacle that has been successfully identified are the ontogenetical obstacle that is psychological and conceptual, didactical obstacle, and epistemological obstacle. The ontogenic psychological obstacle that is identified is related to students' interest and motivation towards learning. Ontogenic identified conceptual issues related to the conceptual level of design that is too difficult and too fast for students. Didactical obstacle deals with designs that do not represent the interrelationship between concepts so that they are not aligned with the continuity needs of the students. Epistemological obstacle deals with students' knowledge in solving problems related to the concept of derivatives of functions. Suggestions for further research related to the improvement of the learning flow so as to provide more space for students to be able to interpret the function derivatives correctly.

Keywords: ***Derivatives of Functions, Didactical Obstacle, Epistemological Obstacle, Ontogenic Obstacle***